

two years, according to the head of Virginia Institute of Marine Science Department of Crustaceology. The department head, who is well known for his accurate predictions of blue crab abundance and production, based his figure on estimates of the present abundance of juvenile and adult crabs.

The researcher explained that although some blue crabs in the Chesapeake Bay spawn in late April and some in early October, intensive spawning begins in June and ends in late August. In a year of normal temperature and rainfall, large numbers of crabs reach maturity by early September, 14 months after hatching.

Between September (when maturity is attained) and the following August, most adult crabs die from natural causes or are removed by fishing. "Thus, we can expect that in the Bay the commercial fishery exploits a new crop every 12 months, between September and the following August," the researcher said.

"Catch since September 1973 has been only two-thirds of the long-term average, and there should be a temporary high catch from May through August, derived from a later-than-normal hatch of crabs in 1973. This increase is expected to be short-lived, however, and catch from September 1974 through August 1975 should be about 50 million pounds," the researcher stated.

Alaska King Crab Catch Rises in 1973

The Alaska king crab harvest in 1973 totaled 76 million pounds and brought fishermen more than \$40 million, the Alaska Department of Fish and Game reports. The harvest is the largest since 1968 and totals two million pounds more than the 1972 catch. Major king crab fisheries in the Bering Sea, Kodiak, Alaska Peninsula and Unalaska areas were highly successful. Quotas were quickly attained through improved efficiency and increased effort in all registration areas.

In the Bering Sea, 67 vessels har-

vested the 23 million-pound quota in 86 days. In comparison, 21 million pounds were harvested over a 10 month period in 1972.

The Kodiak area opened on Aug. 15 with 125 vessels participating. The season was closed 10 days later after 10.3 million pounds were taken from a 13 million-pound quota in the Southern district. This district was reopened during October for eight days and an additional two million pounds were harvested. In the Northeast and Shelikof districts of the Kodiak area, the harvest was 1.6 million and 800,000 pounds, respectively. The Kodiak area king crab catch totaled 14.7 million pounds.

The South Peninsula king crab season opened in mid-August and closed Sept. 28 in the Unimak Bight district, Oct. 17 in the Central district and Jan. 15 in the West Chignik district. The total king crab catch for the South Peninsula area reached 4.5 million pounds, slightly above that of the previous year.

Publications

New York Bight User Services Publication

A new catalog describing available products and services associated with the New York Bight, a marine area of critical economic and environmental importance, has been issued by the Environmental Data Service—a part of the Commerce Department's National Oceanic and Atmospheric Administration.

Entitled **NOAA Products and Services Pertaining to the New York Bight**, the publication is a by-product of the Marine Ecosystems Analysis (MESA) Program under the Office of Coastal Environment—a project initiated by NOAA in 1973 to study the waters extending from Montauk Point, L.I., to Cape May, N.J., and from the coastline to the edge of the Continental Shelf. This is perhaps the most complex and heavily impacted coastal marine area in the United States.

In the Unalaska area the 24 day king crab season produced good fishing in all districts, with the Egg Island district showing excellent catches. The total harvest for all districts was 13.5 million pounds by 55 vessels. The Adak, or Area R, season opened on Nov. 1 and was closed by the department by emergency order on Dec. 6 when it became evident to biologists monitoring the fishery that the king crab stocks in the area were at low level of abundance. The eight million pound harvest from this major production area had fallen far short of the anticipated level and the closure was necessary to conserve the resource. Subsequently, a portion of the southern and western Aleutians king crab areas were reopened on Feb. 1 on the basis of exploring the availability of stocks in areas unfished during the initial open season. Catches through the Feb. 26 closing date in these areas were estimated to be slightly in excess of one million pounds.

The catalog is divided into six service sections. Subjects covered are environmental prediction and warning services, environmental satellite information, marine resources, marine description, mapping and charting, marine data services, and library and information services. The four appendixes contain a listing of addresses to help the user identify the sources offering the various products and services, a listing of general catalog-type publications that inform the user about products in special interest areas, a glossary of acronyms, and a subject index in alphabetical order.

Copies of the publication may be obtained from the Project Manager, MESA New York Bight Project, Marine Sciences Research Center, Bldg. J, State University of New York, Stony Brook, NY 11790.

Alaskan Oil Impact Booklet Published

The effects of oil resource development on northern plant life is the subject of a 95-page booklet published by the University of Alaska's Institute of Arctic Biology in Fairbanks. It is entitled **Proceedings of the Symposium on the Impact of Oil Resource Development on Northern Plant Communities**, and was published in 1973 following the 23rd Alaska Science Conference held on the University's Fairbanks campus the year before.

Included in the published research reports is a study of revegetating disturbed tundra and taiga (subarctic forest areas) at eight sites along the route of the proposed 800-mile trans-Alaska pipeline. Dr. Keith Van Cleve, associate professor of forestry at the University, gives results of three years of work, and reports that considerable success was obtained using grass seed to revegetate disturbed sites south of the Happy Valley-Sagwon area. More northerly sites, however, may require additional watering or mulching with organic matter to help retain moisture. Plant species were selected with assistance from the University's Institute of Agricultural Sciences; useful species tested included annual rye grass, meadow foxtail, arctared fescue and nugget poa grass.

A difference in the effect of crude and refined oil was noted in another paper in the publication. B. H. McCown, formerly of the Institute, and F. J. Deneke of the U.S. Army's Cold Regions Research and Engineering Laboratory at Ft. Wainwright were among a group of scientists who reported that on the North Slope, particularly, certain native sedges—grasslike marsh plants—seemed relatively tolerant to crude oil. Plants treated with five liters per square meter (slightly less than five quarts on an area approximately one yard square) caused a dry-weight decrease of only 19 per cent one year later. Refined oil, however, seemed to be potentially more destructive than

crude. It has remained in the subsurface layers of soil for years along the route of pipelines in interior Alaska. The authors point out, however, that efforts to revegetate in these areas covered by a mat of dead plant material is often harmful, because the dead material acts as insulation to prevent the melting of permafrost which leads to erosion.

Another report in the publication tells of the effect of natural oil seeps on microscopic plant and animal life in small ponds. Drs. Robert J. Barsdate and Vera Alexander of the University's Institute of Marine Science participated in that study which indi-

Marine Journal Gets New Editors

Dr. William J. Richards, of the Southeast Fisheries Center, NMFS, Miami, Fla., has been appointed editor of the *Bulletin of Marine Science*, a quarterly journal of the Rosenstiel School of Marine and Atmospheric Science, University of Miami. James B. Higman of the University of Miami will serve as assistant editor. The new editorial board includes Drs. Frederick M. Bayer and Michael R. Reeve, University of Miami; Dr. Ivan Goodbody, University of the West Indies, Kingston, Jamaica; and Dr. Reuben Lasker, Southwest Fisheries Center, NMFS, La Jolla, Calif.

The *Bulletin* is dedicated to the enhancement of high quality research in the marine sciences, particularly to those relating to tropical and subtropical waters. Preference is given to papers of primarily biological interest, but relevant manuscripts in the physical, chemical, and geological sciences are also welcomed. Contributions of general and theoretical significance will be considered for publication along with papers of economic or applied aspects of commercial fisheries.

New subscription prices for the *Bulletin* per volume of four issues will be: Volume 24 (1974), institu-

ated that although relatively fresh oil in the water caused a decrease in plant life in the ponds, water in contact with old oil-tars and asphalts had a greater amount of algae and other simple forms of plant life. The microscopic animal life that would ordinarily feed on the plants decreased when water was in contact with oil of any age, however, and the researchers concluded that the increase in plant life was possible due to the decrease in grazing pressure. Publication of the proceedings of the symposium was assisted by a joint grant from the Life Sciences Division of the Army Research Office, and the Alyeska Pipeline Service Company.

tions will continue at \$32, individual subscriber rate will return to \$18, and a new student rate will be \$9. Due to increased costs, volume 25 (1975) may be subscribed by institutions at \$50, individuals at \$20, and students at \$10.

Manuscripts should be submitted to the Editor, *Bulletin of Marine Science*, Rosenstiel School of Marine and Atmospheric Science, 10 Rickenbacker Causeway, Miami, Florida 33149. Subscriptions should be submitted to *Bulletin of Marine Science* Subscription Office, Box 368, Lawrence, Kansas 66044.

"Freshwater Fishes of Canada" is Available

A new book entitled **Freshwater Fishes of Canada**, has been published by the Fisheries Research Board of Canada. The authors, W. B. Scott and E. J. Crossman, have done an exhaustive and complete compilation of information on Canadian freshwater species, their distribution, biology description, nomenclature, and relation to man. Copies may be ordered by mail from Information Canada, Ottawa, K1A0S9. The price is \$9.75 per copy.